4.2 Health Status of the U.S. Compared to the Rest of the World

Several measures are used worldwide to describe health status. These indicators include life expectancy (i.e., the number of years people can expect to live at birth), the number of infant deaths, and the major causes of deaths.

Collecting and reporting the data necessary to compare these measures between nations is a challenge. Yet, as travel and communications increasingly link the health of nations in the world, the importance of having comparable information has increased. Fortunately, considerable progress has been made to improve the comparability of the necessary data among nations.

In addition to enabling comparisons of health status, the data also can be used to inform U.S. environmental health policy and programs, to focus research efforts, and to provide insights into linkages between environmental factors and health.

Life Expectancy

Life expectancy is the average number of years at birth that a group of infants would live if throughout life they experienced the age-specific death rates present at birth. In 2000, life expectancy at birth for all people in the U.S. was a record 76.9 years (Pastor, et al., 2002). In 1997, the U.S. ranked 19th in terms of life expectancy for both females and males when compared with other countries (Exhibit 4-9). Life expectancy at birth varies widely, both between males and females and between nations. For both sexes, Japan reports the highest life expectancy of all nations, with males expected to live 77.2 years and females expected to live 83.8 years.

Infant Mortality

Infant mortality is a particularly useful measure of health status because it indicates both the current health status of the population and predicts the health of the next generation (NCHS, 2001). Between 1970 and 2000, the infant mortality rate in the U.S. declined from 20.0 to 6.9 per 1,000 live births, the lowest ever recorded in the U.S. (Pastor, et al., 2002; Mannino and Smith, 2001). When compared to other countries, the U.S. ranked 11th in 1960 with regard to infant mortality. In 1998, the U.S. ranked 28th (Exhibit 4-10).

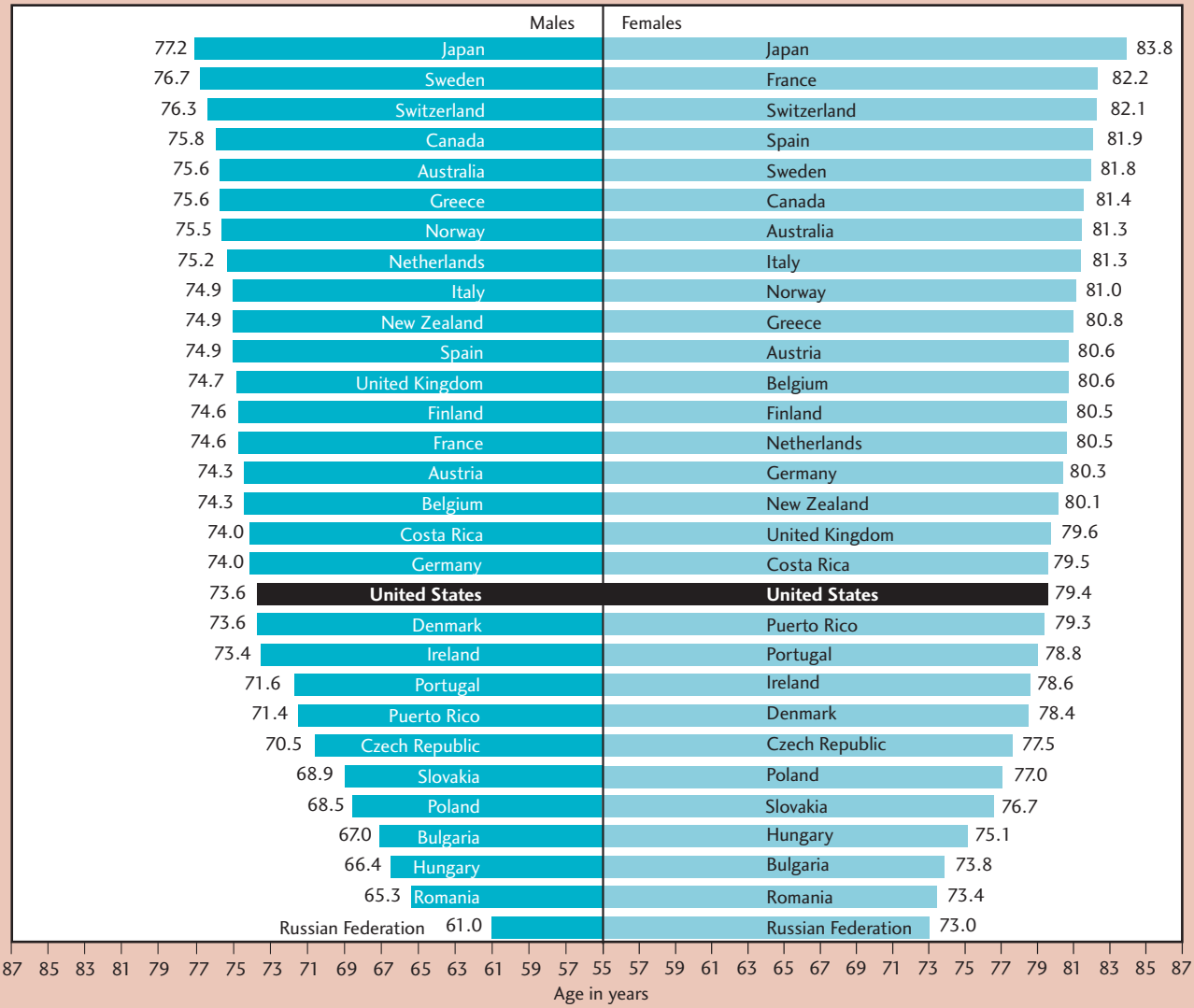
Leading Causes of Death

It is customary to measure the health of a nation by listing the leading causes of death. Comparisons of the 10 leading causes of death in the U.S. and for the world demonstrate that infectious diseases are a major contributor to deaths outside of the U.S. Four of the 10 leading causes of death in the world are infectious diseases (Exhibit 4-11). These diseases account for 20.3 percent of the deaths worldwide. Heart disease is the leading cause of death in the U.S. as well as in the world. While heart disease accounts for nearly one-third of the deaths in the U.S., it accounts for only 12.4 percent of the deaths in the world.

Cancer Morbidity and Mortality

The age-adjusted cancer mortality rates for all body sites except skin are higher for males than females in all of the countries presented in Exhibit 4-12. There is wide variation among men and women in age-adjusted cancer death rates. Hungary has the highest age-adjusted total cancer (except skin) death rates for both males and females (272.3 and 149.4 per 100,000 people, respectively). The U.S. ranks 16th for males, with an age-adjusted cancer death rate of 161.8 per 100,000, and 10th for females, with an age-adjusted cancer death rate of 116.4 per 100,000. Sweden has the lowest age-adjusted

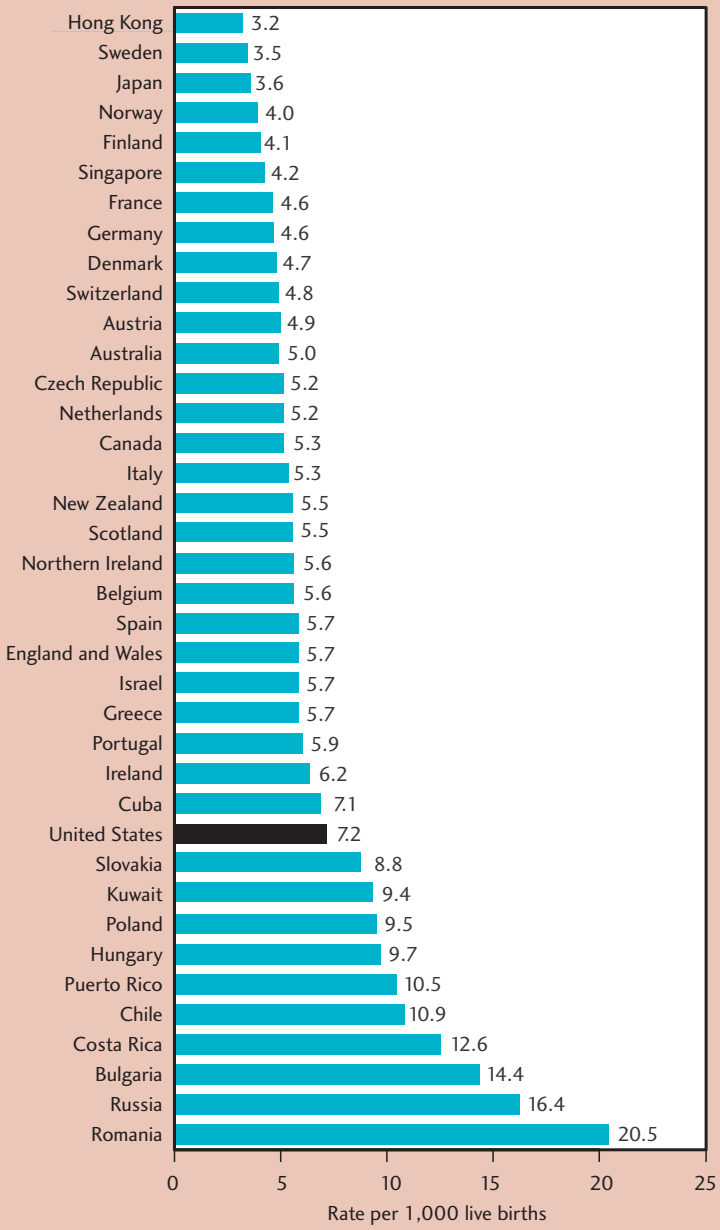
Exhibit 4-9: Life expectancy at birth, according to sex, United States and selected countries, 1997



Note: Rankings are from highest to lowest life expectancy based on the latest data available for countries or geographic areas with at least 1 million people.

Source: Pastor, R.N., et al. *Health. United States, 2002*. 2002.

Exhibit 4-10: Infant mortality rates per 1,000 live births, United States and selected countries, 1998*



* Data for Kuwait, Slovakia, and Spain are for 1996.

Source: Pastor, R.N., et al. *Health. United States,2002*. 2002.

cancer death rate for males, and Greece has the lowest rate for females (137.9 and 81.8 per 100,000, respectively) (United Nations, 2001).

The age-adjusted incidence of cancer for all sites except skin varies widely among different countries (Exhibit 4-13). Hungary reported the highest age-adjusted incidence of cancers for males (405.4 per 100,000 people). New Zealand had the highest age-adjusted cancer incidence rate for females (303.2 per 100,000 people). The U.S. has the third highest age-adjusted cancer incidence rates for both males and females (361.4 and 283.2, respectively). Age-adjusted cancer incidence rates are higher for males than females in each of the countries presented in Exhibit 4-13 except Denmark (GLOBOCAN 2000, 2001).

The varying incidence and mortality rates for cancer between different countries could be due to many factors. Factors related to the economic, social, cultural, psychological, behavioral, and biological mechanisms that influence the onset of cancer may contribute to these differences in rates (NCI, 2002). A portion of these differences might also be attributable to the varying prevalence of certain behavioral risk factors for cancer—such as cigarette smoking, diet, and alcohol consumption—within different countries. The availability and use of certain drugs, such as anticancer and immunosuppressive drugs, may also cause differences in the rates of cancer among different countries. The extent to which early diagnoses and treatment methods are available and utilized could also account for some portion of the variation in cancer rates among different countries, as could variations in methods of classifying and reporting cancer.

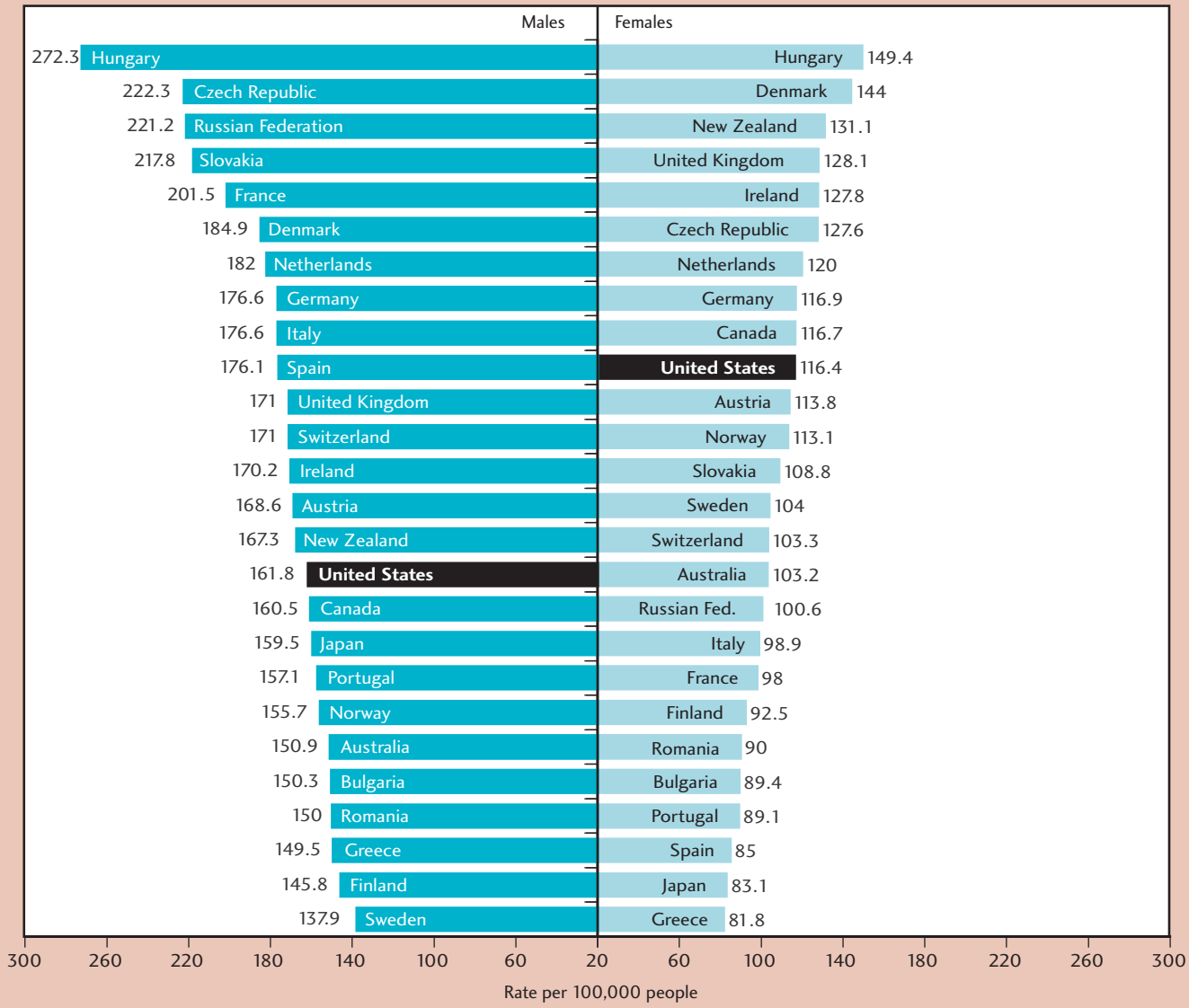
For more on morbidity, mortality, and age-adjusted rates, see Section 4.3.

Exhibit 4-11: Number of deaths and percent of total deaths for 10 leading causes of death, world (including U.S.), 1990, and United States, 1999

Cause of Death	Number of Deaths	Percent of Total Deaths
World (Including U.S.) (1990)		
All causes	50,467,000	100.0
Heart disease	6,260,000	12.4
Stroke	4,381,000	8.7
Lower respiratory infections	4,299,000	8.5
Diarrheal diseases	2,946,000	5.8
Conditions arising during the perinatal period	2,443,000	4.8
Chronic obstructive pulmonary disease	2,211,000	4.4
Tuberculosis	1,960,000	3.9
Measles	1,058,000	2.1
Road traffic accidents	999,000	2.0
Trachea, bronchus and lung cancers	945,000	1.9
All other causes	27,502,000	54.5
United States (1999)		
All causes	2,391,399	100.0
Heart disease	725,192	30.3
Cancer	549,838	23.0
Stroke	167,366	7.0
Chronic lower respiratory diseases	124,181	5.2
Accidents (unintentional injuries)	97,860	4.1
Diabetes mellitus	68,399	2.9
Influenza and pneumonia	63,730	2.7
Alzheimer's disease	44,536	1.9
Nephritis, nephritic syndrome, and nephrosis	35,525	1.5
Septicemia	30,680	1.3
All other causes	484,092	20.2

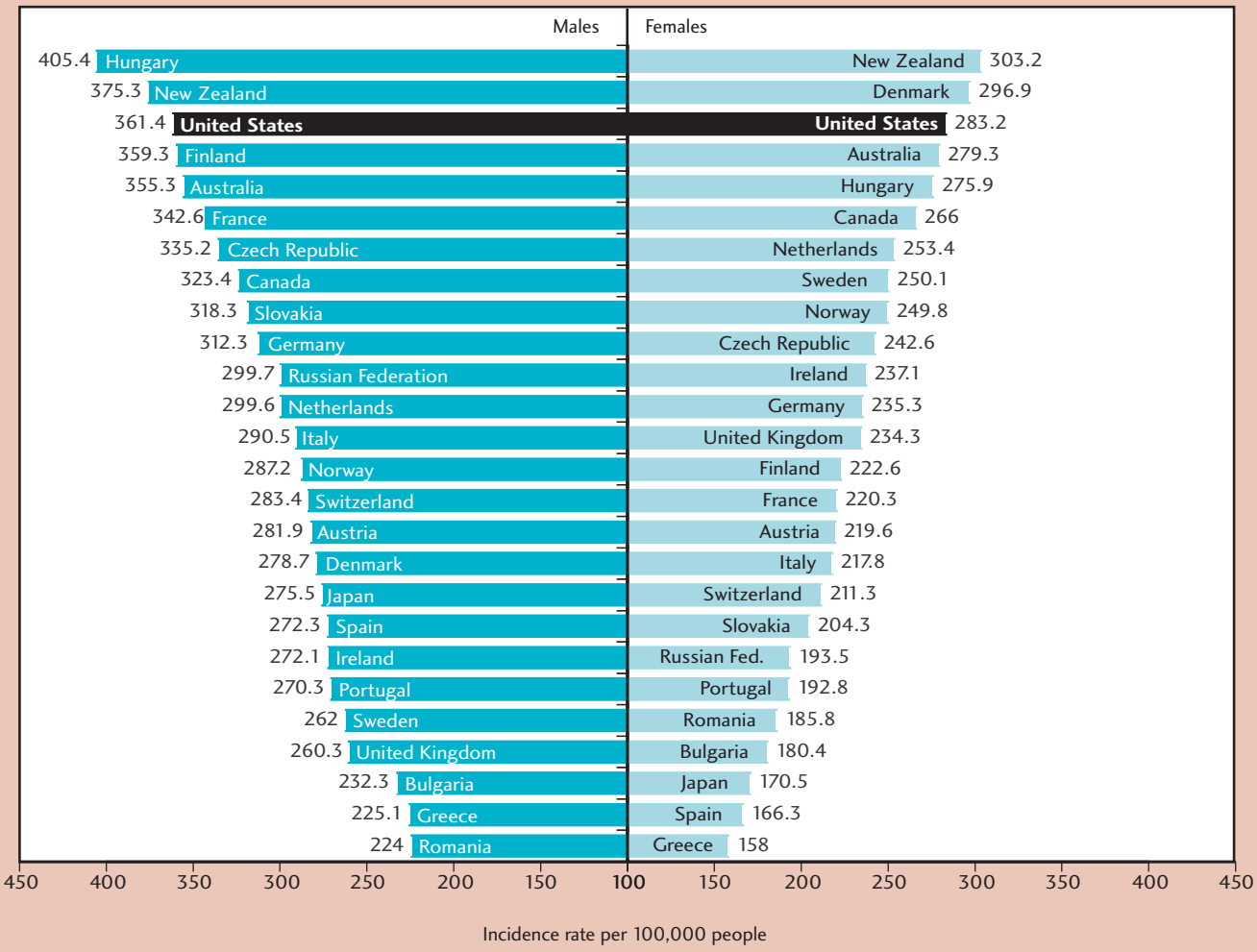
Sources: World Resources Institute, et al. *World Resources 1998-99*. 1998; Anderson, R.N. *Deaths: Leading Causes for 1999*. 2001.

Exhibit 4-12: Age-adjusted cancer mortality rates for all sites except skin, by sex for selected countries, 2000



Source: United Nations. *Demographic Yearbook, 1999*. 2001.

Exhibit 4-13: Age-adjusted cancer incidence rates for all sites except skin, by sex for selected countries, 2000



Source: GLOBOCAN. *Cancer Incidence, Mortality, and Prevalence Worldwide, Version 1.0.* 2001; International Agency for Research on Cancer. *IARC Cancer Base No. 5.* 2001.